Research
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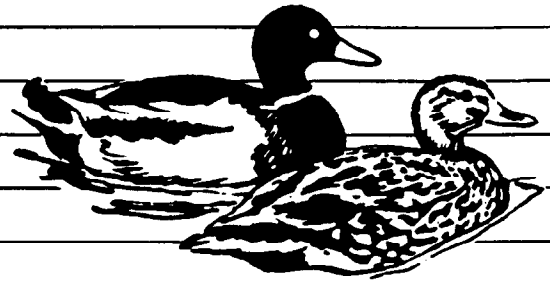

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Treeshelters Seem Effective in Reducing Nutria Damage in Louisiana Coastal Swamps

In an earlier report, we assessed the potential for the use of treeshelters to protect tree seedlings from nutria (*Myocaster coypus*). On the basis of a small field trial we conducted and the experiences of a private land manager and tree planting contractor (Williams, Inc., Patterson, Louisiana), we concluded that although it was possible for nutria to destroy seedlings within the treeshelters, in most instances the shelters afforded good first-year protection and also enhanced seedling growth.

After three additional growing seasons, I returned to the site of our small trial, which used baldcypress (*Taxodium distichum*) and TUBEX brand treeshelters (Tubex Limited, Surrey, England), to determine how well the treeshelters and planted seedlings were performing. Only two additional seedlings had died in the last three growing seasons, and the remaining seedlings averaged 2.1 m (SD = 0.45 m) in height and 2.7 cm (SD = 1.3 cm) DBH. A spokesperson for Williams, Inc. also reports that the seedlings he has planted in treeshelters have exhibited good survival and growth after several growing seasons. He has planted approximately 12,000 seedlings in shelters to date, including baldcypress, Nuttall oak (*Quercus nuttallii*), water oak (*Q. nigra*), and persimmon (*Diospyros virginiana*). Clearly, treeshelters continue to provide good protection from nutria in the Louisiana coastal zone.

I observed one development in our trial that may prove critical to long-term success when using treeshelters. The basal diameter of several of the seedlings was large enough that the trees were pushing against the wall of the tubes and appeared in danger of becoming girdled. After four growing seasons, the treeshelters were still in good condition and showed no signs of cracking or otherwise degrading sufficiently for the saplings to break free. Even though the trees were stretching the walls of the tubes, the tubes were flexible enough that they did not break. It is not clear whether girdling will occur, but it seems prudent for restorationists working with fast-growing species to carefully inspect their trees for signs of damage or girdling and to consider removing shelters rather than relying on them to degrade. A representative of a manufacturer of treeshelters (Treessentials, St. Paul, Minnesota), whom I

contacted to discuss this potential problem, recommended annual inspections of treeshelters and removal to avoid possible damage when the base of the tree reaches approximately 7.5 cm. He also cautioned that many people remove the treeshelter too soon—that is, before the tree is wind-firm or when the shelter is still necessary for protection from girdling by rodents or scraping of antlers by deer.

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